CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 79-23

NPDES PERMIT NO. CA0037494

WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF PACIFICA
SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. The City of Pacifica, (hereinafter called discharger), by application dated July 20, 1978, has applied for renewal of waste discharge requirements and a permit to discharge wastes under the National Pollutant Discharge Elimination System.

2. The discharger presently discharges an annual average dry weather flow of 3.4 million gallons per day of municipal wastewater containing pollutants into the Pacific Ocean at a point approximately 2700 feet offshore from the Sharp Park Treatment Plant and 40 feet below the water surface. The City has recently completed construction of secondary treatment facilities which are now operational. Design capacity of the secondary treatment facilities is 4.3 mgd.

3. The State Water Resources Control Board, in January 1978, adopted the revised "Water Quality Control Plan for the Ocean Waters of California" which contains water quality objectives for the Pacific Ocean.

4. The beneficial uses of the Pacific Ocean are:

   a. Recreation
   b. Preservation and enhancement of fish, wildlife and other marine resources or preserves
   c. Industrial water supply
   d. Esthetic enjoyment
   e. Navigation

5. The discharge is presently governed by Waste Discharge Requirements, Order No. 74-166 which allows discharge to Pacific Ocean.

6. The discharger has requested a waiver from secondary treatment requirements for deep water discharge into marine waters. This request is being reviewed by the Environmental Protection Agency (EPA). If such waiver is granted by EPA, the Board will make appropriate modifications of this Order.

7. The discharger has prepared a final Environmental Impact Report dated October 1973, on the upgrading of the City's treatment facilities in accordance with the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.).

8. The project will have no significant adverse effects on the environment.

9. The Board has notified the discharger and interested agencies and persons of its intent to prescribe revised waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

10. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the City of Pacifica, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. Discharge within 1,000 feet offshore from the extreme low waterline and where the waste will not receive a minimum dilution ratio of 100:1 as it reaches the surface is prohibited.

2. There shall be no bypass or overflow of untreated wastewater to waters of the State either at the treatment plant or from the collection system.

3. The average dry weather flow shall not exceed 4.3 mgd. Average shall be determined over three consecutive months each year.

4. The discharge of municipal and industrial waste sludge directly to the ocean, or into a waste stream that discharges to the ocean, shall be prohibited. The discharge of sludge digester supernatant directly to the ocean, or into a waste stream that discharges to the ocean without further treatment shall be prohibited.

B. Effluent Limitations

1. The discharge of an effluent containing constituents in excess of the following limits is prohibited:

Constituents	Units	30-Day Average	7-Day Average	Maximum Daily	Instantaneous Maximum
a. Chlorine Residual	mg/l	-	-	-	0.0
b. BOD	mg/l	30	45	60	-
	lbs/day	2152	3227	4303	-
	kg/day	974	1460	1947	-
c. Suspended Solids	mg/l	30	45	60	-
	lbs/day	2152	3227	4303	-
	kg/day	974	1460	1947	-
d. Settleable Solids	ml/l-hr	0.1	-	-	0.2
e. Oil and grease	mg/l	10	-	20	-
	lbs/day	717	-	1434	-
	kg/day	324	-	649	-
f. Turbidity	JTU	75	100	-	225

2. The arithmetic mean of the biochemical oxygen demand (5-day, 20°C) and suspended solids values, by weight, for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period (85 percent removal).

3. The discharge shall not have a pH of less than 6.0 nor greater than 9.0.

4. Representative samples of the effluent shall not exceed the following limits more than the percentage indicated:[3/]

Constituent	Unit of Measurement	50% of time	10% of time
Aresenic	mg/l	0.01	0.02
Cadmium	mg/l	0.02	0.03
Total Chromium	mg/l	0.005	0.01
Copper	mg/l	0.2	0.3
Lead	mg/l	0.1	0.2

[3/] If the discharger is unable to comply with these limitations and can show good cause for such failure, the Board will consider modification of these limits.

Constituent	Unit of Measurement	50% of time	10% of time
Mercury	mg/l	0.001	0.002
Nickel	mg/l	0.1	0.2
Silver	mg/l	0.02	0.04
Zinc	mg/l	0.3	0.5
Cyanide	mg/l	0.1	0.2
Phenolic Compounds	mg/l	0.5	1.0
Ammonia (expressed as nitrogen)	mg/l	40	60
Total Identifiable Chlorinated Hydrocarbons[1/]	mg/l	0.002	0.004
Toxicity Concentration[2/]	tu	1.5	2.0
Radioactivity	Not to exceed limits specified in Section 30269 of the California Administrative Code.		

[1/] Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

[2/] Method of calculation is in the "Water Quality Control Plan for Ocean Waters of California" dated January 1978.

C. Receiving Water Limitations

1. Floating particulates and grease and oil shall not be visible.

2. The discharge of waste shall not cause esthetically undesirable discoloration of the ocean surface.

3. The transmittance of natural light shall not be significantly[1/] reduced at any point outside the initial dilution zone.[1/]

4. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.[1/]

5. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, the following bacteriological requirements shall be maintained throughout the water column:

[1/] As defined in the "Water Quality Control Plan for Ocean Waters of California" dated January 1978.

(a.) Samples of water from each sampling station shall have a concentration of coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml).

(b.) The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 per 100 ml nor shall more than 10 percent of the total samples during any 30-day exceed 400 per 100 ml.

6. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.

7. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

8. The dissolved sulfide concentration of waters in and near sediments shall not be significantly[1/] increased above that present under natural conditions.

9. The concentration of organic materials in marine sediments shall not be increased above that which would degrade[1/] marine life.

10. Nutrient materials shall not cause objectionable aquatic growths or degrade[1/] indigenous biota.

11. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.[1/]

12. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall be altered.

13. The discharge shall not cause toxic or other deleterious substances to be present in waters of the State in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

14. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

[1/] As defined in the "Water Quality Control Plan for Ocean Waters of California" dated January 1978.

D. Provisions

1. This Order does not revoke Order No. 74-166. Order No. 74-166 shall remain in full force and effective until Order No. 76-101 is rescinded.

2. The discharger shall comply with all effluent and receiving water limitations, prohibitions, and provisions of this Order immediately upon adoption.

3. The discharger shall comply with the attached Self-Monitoring Program as ordered by the Executive Officer.

4. The discharger shall comply with all items of the "Standard Provisions, Reporting Requirements and Definitions" dated April 1977.

5. This permit shall be modified, or alternatively revoked and reissued as soon as practicable to incorporate an approved publicly owned treatment work (POTW) pretreatment program or a compliance schedule for the development of a POTW pretreatment program as required under Section 402(b)(8) of the Clean Water Act and implementating regulations or by the requirements of the approved state pretreatment program as appropriate.

6. If the discharger elects to document compliance with the coliform receiving water limitation exclusively in the effluent and so notifies the Board, in writing, the frequency of receiving water coliform monitoring will be reduced accordingly; PROVIDED, HOWEVER, that if such election is made, a violation of the coliform requirement in the effluent shall constitute a violation of the coliform receiving water limitation.

7. This Order expires on February 20, 1984, and the discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

8. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective ten (10) days after date of its adoption provided the Regional Administrator, Environmental Protection Agency has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 20, 1979.

FRED H. DIERKER
Executive Officer

Attachments:
Standard Provisions, Reporting Requirements & Definitions, dated April 1977

Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

City of Pacifica

San Mateo County

NPDES NO. CA 0037494

ORDER NO. 79-23

CONSISTS OF

PART A

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT AND INTAKE

Station	Description
A-1	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

Station	Description
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D)
E-001-D	At any point in the disinfection facilities for Waste E-001 at which point adequate contact with the disinfectant is assured.

C. RECEIVING WATERS

Station	Description
C1	At the shoreline, 500 feet north of the outfall line.
C2	At the shoreline, 1000 feet north of the outfall line.
C3	At the shoreline, 500 feet south of the outfall line.
C4	At the shoreline, 1000 feet south of the outfall line.
C5	At a point 1000-2000 feet offshore 1000 feet north of the outfall line.
C6	At a point 1000-2000 feet offshore, 1500 feet north of the outfall line.
C7	At a point within 1000 feet off the end of the, pier.
C8	At a point 1000-2000 feet offshore, 1000 feet south of the outfall line.

Station	Description
C9	At a point 1000-2000 feet offshore, 2000 feet south of the outfall line.
C10	At a point 1000-2000 feet offshore, 2500 feet south of the outfall line.

D. OVERFLOWS AND BYPASSES

Station	Description
P-1 thru P-'n'	Located at the corners and midpoints of the perimeter fenceline surrounding the treatment facilities. (A sketch showing the location of these stations will accompany each report.)
S-1 thru S-'n'	All of the shoreline from 1,000 feet north of the outfall line to 1,000 feet south of the outfall line.

II. SCHEDULE OF SAMPLING, MEASUREMENTS AND ANALYSES

A. The schedule of sampling, measurements and analyses shall be that given as Table I.

III. MODIFICATION OF PART "A"

A. Exclusions: Paragraphs C-3, C-4, and C-5:d.

B. Modification:

1. Paragraph D3a: Add "as weather permits" to the end of sampling of effluent.

2. Paragraph D1a: Replace "... varying days selected at random" with "... days coincident with effluent composite sampling."

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board NPDES Permit No. CA0037494, Order No. 79-23.

2. Was ordered by the Executive Officer on February 20, 1979, became effective immediately and is hereby ordered revised effective on the date ordered as shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger. Revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Attachment:
Table I

Date Ordered February 20, 1979

TABLE I

Order No. 79-23

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A	E-001			E-001-D		All P&S Sta	All OV Sta	All C Sta				
TYPE OF SAMPLE	C-24	G	C-24	Cont	G	C-24	O	O	G	G			
Flow Rate (mgd)				D									
BOD, 5-day, 20° C. (mg/l & kg/day)	3/W		3/W										
Chlorine Residual & Dosage (mg/l & kg/day)					2H or cont								
Settleable Matter (ml/l-hr. & cu. ft./day)		D											
Total Suspended Matter (mg/l & kg/day)	3/W		3/W										
Oil & Grease (mg/l & kg/day) (2)	W		2/W										
Coliform (Total or Fecal) (4) (MPN/100 ml) per req't (5)									(6) 2W	(3) M(7)			
Fish Toxicity, 96-hr. TL_{50}						2W							
Ammonia Nitrogen (mg/l & kg/day)			M										
Nitrate Nitrogen (mg/l & kg/day)			M										
Nitrite Nitrogen (mg/l & kg/day)			M										
Total Organic Nitrogen (mg/l & kg/day)			M										
Total Phosphate (mg/l & kg/day)			M										
Turbidity (Jackson Turbidity Units)			2/W										
pH (units)		D											
Dissolved Oxygen (mg/l and % Saturation)		D											
Temperature (°C)		D											
Apparent Color (color units)			2W										
Floating Particulates (mg/l & kg/day)		2/W											
Sulfides (if DO < 5.0 mg/l) Total & Dissolved (mg/l)		W											
Arsenic (mg/l & kg/day)			3M										
Cadmium (mg/l & kg/day)			3M										
Chromium, Total (mg/l & kg/day)			3M										
Copper (mg/l & kg/day)			3M										
Cyanide (mg/l & kg/day)			3M										
Silver (mg/l & kg/day			3M										
Lead (mg/l & kg/day)			3M										

TABLE I (continued) Order No. 79-23

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A	E-001			E-001-D		All P&S Sta	All OV Sta	All C Sta				
TYPE OF SAMPLE	C-24	G	C-24	Cont	G	C-24	O	O	G	G			
Mercury (mg/l & kg/day)			3M										
Nickel (mg/l & kg/day)			3M										
Zinc (mg/l & kg/day)			3M										
PHENOLIC COMPOUNDS (mg/l & kg/day)			3M										
All Applicable Standard Observations		D					2/W	E	W	W			
Bottom Sediment Analyses and Observations													
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)			3M										
Radioactivity (UCi/l or UCi/kg)			Y										

During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement, and analyses:

1. Composite sample for BOD, total suspended solids, oil and grease. (influent & Effluent).
2. Grab sample for Coliform (total and fecal), settleable matter, and chlorine residual (continuous or every two hours).
3. Continuous monitoring of flow.

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling

O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
F = treatment facilities perimeter stations

B = bottom sediment stations
OV = Overflows and bypasses

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in April and once in September

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

FOOTNOTES:

(1) Continuous monitoring of chlorine residual can be demonstrated from chlorine analyzer charts.

(2) Influent and effluent samples should be taken coincidently at 8-hour intervals. Results should be expressed as a weighted average of the 3 values, based on the instantaneous flow rates occurring at the time of each grab sample.

(3) Beach samples C1 through C4 are acceptable in lieu of boat samples during adverse weather conditions if the city so chooses.

(4) Samples should be collected within one foot below the surface of the receiving water body.

(5) 5 Samples per station per day.

(6) C1 and C3 stations only.

(7) C5, C7, C8, C10 stations only.